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An

(paper)

Inaugural Dissertation

on the

Autumnal Fever

of

Greensville County

Virginia

For the Degree of M. D.

by

John G. Parham

1824.

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On the Autumnal Fever of Greensville County Virginia

This little county, lies in the southern part of Virginia, bordering on the North Carolina line, and about one hundred miles above the seashore. The face of the country is generally level, — somewhat hilly and broken in the western, but flat and swampy in the eastern parts. It is pretty thickly settled, the inhabitants generally in easy circumstances, and temperate in their modes of living.

As the disease of which I am about to speak, most commonly appears in the eastern parts of the county, I deem it necessary, to enter into a more minute detail with regard to its situation, and what I consider the most fruitful source of the complaint.

The lands are low and swampy, but rich, and liable to frequent inundations from —

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the overflowing of Meherrin river, which forms its northern boundary — This is a small stream, but subject to great freshets — a little rain producing an almost immediate rise, — and the lands being low, the water spreads to the distance of one or two miles from its banks. —

It is no uncommon sight at these times, to see the water running within a few steps of the doors of the inhabitants —

At the distance of one or two miles from the river, there is a sudden elevation of ten or twelve feet, and what is remarkable, this ridge continues through the whole extent of the county, preserving nearly the same distance from the waters edge, throughout. —

On this elevation the inhabitants settle —, for the twofold purpose of enjoying better health, and of preserving their parlour floors from the destructive influence of the

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muddy sediment, left on the recession of the waters; which, though it would prove highly injurious to them, serves to enrich the soil, and inspire the farmers with the belief, that their lands are inexhaustible —

Those inundations, I have described, (at certain seasons) are looked upon as favourable to health; — at others, they are viewed as the harbingers of destruction, — the forerunners of sickness and death. — 1st they are considered favourable, when they make their appearance in the winter, or early in the spring — And why, it may be asked, at these seasons, should they be viewed in that light? The reason is obvious. — Occurring at these periods, they remove the whole of the vegetable matter, that has been collecting during the preceding summer and fall; which, should it remain in the stagnant ponds, that are here numerous, would prove an abundant —

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source of marsh exhalations — but these freshets, coming on at this time, carry off the whole of this vegetable matter, and by thus removing the chief source of disease, must undoubtedly contribute to the preservation of health —

But, it may be urged, that the stagnant water will prove as baneful as the matter carried off — This would certainly be the case, were the ponds to remain filled until the sickly season approaches; but the weather being generally dry, during the last spring, and first summer months, the water is evaporated, and the marshes are left perfectly arid, — and, when this happens there is seldom much sickness — Such, then, are the advantages derived from early inundations —, And the same may be said of rains, at these seasons — but, of this, I will treat hereafter. —

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when they appear in the last summer, and first fall months — And, I will here endeavour to explain, why it is, that, they should prove more pernicious at this, that at other seasons.

The sickly season commences generally, about the middle of August — or probably, not before the middle of September — We will suppose that there had been no freshet in the Spring, and but little rain during the summer, not enough to fill the ponds and swamps. — The country being dry, there are of course no exhalations of miasmata — the inhabitants are consequently healthy — but, in the months of July and August, the rains setting in, the river rises, overflows its banks, and covers the whole country, to the very foot of the ridge above mentioned — In a few days the water subsides, and the river returns within its proper limits — but the low places are —

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all filled, and the hot weather continuing, this stagnant water, with the vegetable matter contained in it, putrefies, and emits exhalations, which prove the prolific source of this formidable disease. This is so generally the case, that the people have learned from sad experience to look upon an August freshet, as the precursor of a sickly season.

Wet weather, and the time of its occurrence, exercise also, a considerable influence with regard to this disease. If there be much rain in the winter, or early in the spring, it excites no apprehension of danger. for the same reasons, as were assigned, when speaking of the early overflowings of the river. Should there be, in the months of July and August, a great fall of water, much sickness may be expected for the same causes as already mentioned.

When the rains set in as early as June, the disease will probably make its appearance.

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sometime in July — but this is not often the case — After these autumnal rains or overflowings, should the weather continue very hot, the exhalations become so extremely noxious, as to often excite nausea on approaching the foot of the above named ridge — Indeed, I have had it from the lips of an old gentleman, who resided on that hill for ten or twelve years, and whose veracity cannot be doubted, that he has many mornings in going from his dwelling into what are called the lowgrounds (the lands lying between the river and hill) been forced to stop and vomit freely — that so soon as he passed the skirt of woods which bordered this hill, a disagreeable odour would assail the olfactories — soon after which, an uneasy sensation would be felt at the pit of the stomach, — and this would continue until he had relieved himself by vomiting — This was generally the case, whenever he passed this place, without having previously fortified his stomach against its deleterious —

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effects, with some substantial food, or what professor Chapman emphatically calls "Antifogmatics"? —

This tract of country was formerly more unhealthy than at present — For this change, we are probably indebted to the draining and cultivating of the swamps and marshes, and the greater attention the people pay to the preservation of their health — the most of them being particularly cautious not to leave their houses before they have taken breakfast; — thereby enabling their stomachs, the better to resist the baneful effects of those poisonous exhalations. —

As I have now finished what I had to say with regard to the situation of the country and the chief source of the disease, I shall in the next place proceed to give some account of this form of fever, as drawn from actual observation. —

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The disease, as it appeared last fall (1823) was of a type totally different from its general character. — Instead of the highly bilious inflammatory fever, which was considered almost endemial to the country, we had one of a typhoid character; which in the onset baffled the skill of the physicians, and proclaimed the imbecility of our art — Dismay and terror seized the affrighted people, and death marked its destructive course. —

Before proceeding to the account of this disease, I shall give the outline of the fever that formerly prevailed in this district, with its general treatment &c. — And, as it is nothing more than the common bilious fever, I shall dismiss it in a few words. —

As already remarked, it makes its appearance sometime in August or September — The patient will, perhaps, complain of much debility, disinclination to motion, languor, dull, heavy feelings —

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Stretching, yawning, &c — there is a peculiar yellowish appearance of the eyes, pale skin, and sallow complexion — This continuing several days, he is seized with a chill, succeeded by fever, and all the phenomena accompanying a paroxysm of the intermittent — The patient, will probably have several of these paroxysms, before it becomes a confirmed bilious fever, — or, as it frequently happens, he may have but the one ——. The fever established, the following are the symptoms to be met with — Pulse, frequent, active, and strong; full, voluminous, and bounding; pain in the back, loins, and head; nausea and vomiting; the matter cast up, being of a yellowish or greenish appearance; tongue loaded with a dark, or yellow substance, and dry; great thirst, parched lips, hot, dry skin, urine high coloured and scanty; bowels constipated, or very loose; — in this case the stools —

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are of a deep yellow, or dark appearance; white, or clay coloured;- and often a pricking, burning sensation is felt in the palms of the hands, and on the soles of the feet.— The disease advancing, these symptoms are all aggravated.— The eyes assume a white appearance, and are suffused; delirium supervenes, great heat and tenderness at the pit of the stomach; tongue encrusted with a dark, or yellow scurf; pulse quick, active, corded, and very frequent; becomes at length diminutive, weak, and intermitting, and the patient sinks.—

The indications in the first stage are evident.— They are to reduce vascular action, and to evacuate the alimentary canal.— This is done by bleeding, purging, purging, refrigerants, and cold applications.— Vascular action being reduced, and the alimentary canal thoroughly evacuated, diaphoretics are next resorted to.— and they con—

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stitute the principal treatment in the second stage — the indications being then to relax the surface, and induce perspiration —

Of the diaphoretics, the antimonials are preferred — but the deleified spirits of nitre, spirits of Mindererus, and many others are also used —

The vesicating applications are highly beneficial, after arterial action is sufficiently reduced —

The system being properly prepared, tonics are administered — The peruvian bark is much used, but the eupatorium perfoliatum has nearly superseded it —

The local affections, are to be met by local remedies — In determinations to the head, cupping, leeching, blistering, and cold applications, constitute the treatment — For sickness of the stomach, an emetic may sometimes be useful, — otherwise, the irritability must be quieted, by the use of the effervescing draught, soda water &c &c —

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If the liver or spleen be affected, cup, leech, and blister the hypochondrium — When inflammation of the intestines is apprehended, cups, leeches, cold applications, and blisters, are applied to the abdomen, and emollient injections administered —

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With these remarks, I shall close the account of this disease, and proceed to speak of that which has so lately made its appearance in this county, to the terror of its inhabitants. — — — — —

This fever generally made its approach with languor, lassitude, great debility, and all those phenomena, which attend other fevers in the commencement — This state of things continuing several days, the patient is suddenly attacked with severe pain in the head, and bowels; which are obstinately constipated, and difficult to move; great gastric distress, skin, hot and dry, pulse, quick, very frequent, and diminutive; sometimes full, soft, and easily com—

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freqed; pains in different parts of the body, as the back and extremities; violent determinations to the head, known by severe pain, wild appearance of the eyes, contracted or dilated pupils, throbbing of the temporal arteries, and pulsation of the carotids — In a short time, the patient falls into a state of stupor and coma, from which it is difficult to arouse him — If a question be asked in a loud tone, he will turn up his eyes and give some answer, but immediately relapses into his former state — The disease advancing, the symptoms are all increased to an alarming degree — The pulse, becomes quick, weak, and irregular; tongue, covered over with a dark brown, or yellow substance, very dry, and parched; collection of dark sordes about the teeth and gums, stomach so irritable that scarcely any thing can be retained, skin, very hot, and dry, imparting the sensation of great heat to the hand, bowels obstinately constipated, and —

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when opened, the stools are of a dark, vised nature, and very fœtid — The patient at length sinks into a state of profound stupor, is inattentive to all surrounding objects, and lies more like one enjoying a sweet repose, than a person on the brink of the grave — At other times he is restless; assuming various positions in bed; throwing about his arms, rolling from side to side, and when interrogated with regard to his disease, raises his hands to his head. He moans, sighs, and exhibits all the signs of the greatest wretchedness. — Involuntary discharges now take place, sensibility is much impaired, the extremities become cold, and are covered with a clammy sweat, pulse, weak, irregular, fluttering, sinks, and the tragic scene is closed. — —

From the preceding symptoms, we are brought to the conclusion, that this is a disease of gastric origin, and for its cure, our —

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remedies must be such, as will sooth and quiet the irritability of the stomach, and restore it to the performance of its natural functions.—

As the stomach, in most cases appeared to be principally affected, the remedies were accordingly directed with a view to relieve that important organ.— and this formed the leading indication in the first stage of the disease.

Venesection could not be resorted to, on account of the debility of the patient,— when the physician was called.— It was tried in several cases, but always with manifest disadvantage— In one case, a few ounces produced such a prostration, that it was with the greatest difficulty, the patient was revived.—

Although there was generally great gastric distress in the beginning of the complaint, yet, it did not appear to arise from an accumulation of bile, or other extraneous matter—

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but from the great instability of the stomach, owing, I presume, to incipient inflammation of that viscera. Emetics, for several reasons could, could not be used — 1st They could not be retained, being thrown back immediately — 2nd The inflammation forbade their administration — it would thereby have been increased — 3rd They prostrated the system below the point of reaction — of this I shall give an instance — — —

Mr. W's servant complained of being unwell, and desired his master to give him an emetic. He complied, and so soon as it commenced operating, the system was prostrated to an alarming degree — Stimulating injections of rum, bark, and the like, were resorted to; but without succes — His master at length gave him up as lost — Dr. Hamp, who had patients on the same plantation, determined to try the effects of cold water. It was accordingly thrown into the rectum in —

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large quantities; cloths wrung out in it, were applied to the head, stomach, and abdomen; and in a short time the patient exhibited signs of returning life; and ultimately recovered. He had been in this situation several days before Dr. Harris was applied to. —

Drastic purgatives, could be as little employed — The reasons are obvious. —

These remedies, the most important in the practice of our profession, being rejected, how should we proceed to combat this formidable disease? — The mode pursued shall be pointed out in a few words. —

When called to a patient labouring under the above symptoms, the treatment was commenced by the administration of some laxative medicine, as castor oil; if the stomach would allow of its use; but, that which was found to be the best, was a combination of epsom =

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salts and carbonate of magnesia — This appeared to agree better with the stomach, than any other medicine. — Its operation was aided, by the frequent exhibition of clysters of a cathartic character, so as to produce copious evacuations. — And here I must insist on the great utility of this highly important, but too much neglected class of remedies — Previous to the appearance of this disease, injections were rarely used among us; but now, meeting with a state of the system, which forbade the use of most other remedies, these were resorted to with the most important results — indeed, they were chiefly relied on, in the management of the disease; — but, to be effectual, they had to be frequently repeated. — —

To prove their great utility, I will relate a case which occurred under my own observation. — .

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The child of a free person of colour was taken ill of this disease.— Some medicine had been administered without effect.—. Dr. Smith was called in.— He prescribed, and requested me to visit the patient in the afternoon, and see that his directions had been carried into effect; as he considered the child in a dangerous state.— I called as requested, and found the patient labouring under the following symptoms.——. Pulse, full, soft and compressible; skin hot, and dry; tongue loaded; and the patient speechless and senseless; bowels constipated; nor had there been an evacuation for several days.— Dr. Smith had ordered injections; and cold applications to the head and abdomen.— Neither of which had been done.— I had an injection of salt and water prepared, and administered immediately; cloths wrung out in cold water were applied as above directed; and when I left the house, the injections were ordered to be repeated every half hour, until the bowels=

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were freely evacuated. When Dr. Smith made his visit the next morning, he found his patient much improved in every respect. The senses were restored, the power of speech regained, and the surface moist. He directed the same treatment to be continued; but the parents, finding it so much better, neglected to give the injections; and when the Dr. visited it in the evening, it was found in the same state as on the preceding afternoon. The same treatment was renewed, and with the same happy result. The bowels being, then, kept freely open for several days, the patient recovered entirely.

As a powerful auxiliary in arresting the progress of this disease, cold was resorted to, with the happiest and most signal effects. Here then, is the complaint that calls loudly for its use, and here, it, has displayed its power in controlling disease. Cloths, wrung out in cold water, were applied to the head, stomach, and abdomen, and

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by the diminution of pain in the head, comfortable sensations they imparted to the patient, cooling the surface, diffusing a gentle glow over the whole system, relaxing the skin, renovating the powers of the mind, "calming the agitation of the corporeal frame," restoring quiet to the distracted and wandering faculties, and enabling the patient to sink into, and enjoy a calm and sweet repose, they displayed their great utility in this formidable disease. This is the mode in which the cold was generally used. but in one instance within my knowledge, it was applied by affusion. The attending physician was called soon after the attack. He took the patient (a negro boy) to a well that was convenient, and had buckets of cold water drawn up, and immediately thrown on him. it had the happiest effects, and the boy soon recovered. I am, therefore, fully convinced of the utility of this practice, and shall not hesitate to resort to it, if this —

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disease be prevailing, when I enter into the practice of medicine. Yet, the rules laid down in authors, with regard to temperature, perspiration &c must be attended to. If he be cool, or in a general perspiration, none but an enthusiast, or a madman, would think of the remedy.

With regard to its Modus Operandi, I shall say nothing. leaving that to men of more experience, and better judgment than I possess.

Refrigerants were also used, to assist in reducing arterial action. and nothing was of more service, than the effervescing draught, soda powders, and such articles. They not only act as refrigerants, but also quiet the irritability of the stomach, and place it in a comfortable condition. This, of itself, has a tendency to abate the fever, for, so long as nausea continues, the whole system must be disordered. To use

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a favourite expression of Professor Chapman, — "Ventriculo languido, omnia languent." —.

The soda powders were much used by my preceptor, Dr. Harris, whose practice was very extensive and successful. — He obtained the best effects from their free administration. —.

Arterial action being reduced, and the stomach restored to a quiet and tranquil state, the 2nd stage of the disease next claimed our attention. — — If there were any remains of coma, (which was generally the case) a blister was applied to the back of the neck; and this not affording relief, they were alternately placed on the ankles and wrists; — and these means failing, I would recommend the head to be shaved, and one applied over its entire surface —. This was not done in any instance, that I am aware —

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of; but, of its utility there can be no doubt.— Dry cupping might also have a beneficial effect.— The injections were continued throughout, so as to keep the bowels in a soluble state.— Laxative medicines were likewise, occasionally given; The mixture so much recommended by Dr. Chapman was much used. Viz. Glauber salts, tartar emetic, lemon juice or vinegar, and water.— This kept the bowels loose, relaxed the surface, and had also a refrigerant effect.—

Diaphoretics were at this time, of primary importance.— The celebrated powders of Dr. Rush, were highly esteemed.— These, as is well known, consist of calomel, tartar emetic, and nitre.— If no purgation were desired, the calomel was omitted.— Combinations of the dulcified spirits of nitre, laudanum, and antimonial wine, were used with benefit.— But, when the irritability of the stomach was such, as to forbid—

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the use of the antimonials in every shape, the saline mixture was substituted.— This not only subdues arterial action, but also quiets the irritability of that organ.—

Cold applications were continued in this stage if indicated— indeed, I believe them to be the most effective means we possess, in overcoming this disease;— and, had they been more frequently resorted to, the mortality would not have been so great.— From witnessing its decidedly beneficial effects in several cases, I should not hesitate to push its use to a very considerable extent; and I am fully persuaded, that, when it comes to have a more extensive application, the better will practitioners be pleased with it.— I have seen a case of obstinate constipation, which had resisted every remedy, even the tartar emetic injections, yield, in a few minutes, to the sudden application of cold to the abdomen, by means of cloths dipped in cold water and immediately—

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The disease, being overcome by these remedies, tonics were next used — and of these, the eupatorium perfoliatum was the chief — it was given in cold infusion; — prepared by pouring a pint of boiling water, on an ounce of the medicine — it was then covered over, and suffered to stand until cool — Of this, a wineglassful was given pro re nata. — Other tonics, as the peruvian bark, &c were occasionally administered. — —

It was necessary to pay the strictest attention to diet, — allowing the patient nothing, but what was light, and of easy digestion. — —

By pursuing this course, the patient was generally restored to health, if the disease had been taken in time — but, if it had been suffered to continue several days without medical aid, it defied the powers of the art, & terminated fatally in a short time. —

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